



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,835	01/06/2005	Hironobu Ichimaru	Tsuruwaka 51	2447
23474	7590	03/22/2006	EXAMINER	
FLYNN THIEL BOUTELL & TANIS, P.C. 2026 RAMBLING ROAD KALAMAZOO, MI 49008-1631			MACKEY, JAMES P	
			ART UNIT	PAPER NUMBER
			1722	
DATE MAILED: 03/22/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/520,835

Applicant(s)

ICHIMARU, HIRONOBU

Examiner

James Mackey

Art Unit

1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/4/2005.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

Art Unit: 1722

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 5, "the fluid" lacks proper antecedent basis in the claim;

lines 13-14, "a block main body" is indefinite as to how this relates to the panel block (it is suggested that the claim be amended to recite that the block main body is a part of the panel block);

line 17, "the valve main body" lacks proper antecedent basis in the claim;

lines 22-23, "formed long in a vertical direction" is unclear and indefinite as to whether "long" refers to a specific length (it is suggested that the phrase be amended to recite that the block main body extends longitudinally in a vertical direction);

lines 24 and 27, "perpendicularly formed" is indefinite as to exactly what is intended and as to what structure the surface is perpendicular to (is this intended to claim a planar surface?);

line 28, "a plurality of panel valves" should be --said plurality of panel valves-- to clearly refer to the previously-recited panel valves;

line 32, "the panel valve mounting portions" lacks proper antecedent basis in the claim and is indefinite as to how this relates to the valve side connection surface;

lines 32-34, "a first outflow port from a first inflow port and the outflow path to said inflow path" is indefinite and unclear as to exactly what structure is being claimed and indefinite as to how the recited structures inter-relate;

Art Unit: 1722

lines 35-37, “a second outflow port from a second inflow port and the auxiliary flow path to said main flow path” is indefinite and unclear as to exactly what structure is being claimed and indefinite as to how the recited structures inter-relate;

line 45, “and the like” renders the claim of indefinite scope because the claim includes elements not actually disclosed (those encompassed by “and the like”), thereby rendering the scope of the claims unascertainable (see MPEP § 2173.05(d)); and

line 46, “at a lowest position” is indefinite as to where the position is located relative to the other claimed structural elements (it is suggested that the phrase be amended to recite that the exhaust valve is arranged at a lowest position on the block main body of the panel block).

3. Claim 1 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

The prior art of record does not teach or fairly suggest a piping structure in a tire vulcanizing machine having upper and lower molds and a bladder expanded and contracted by supplying and discharging fluid, the piping structure comprising:

a panel block comprising a block main body which extends longitudinally in a vertical direction and which has a block side connection surface in a side surface thereof, wherein a main flow path and a plurality of auxiliary flow paths are formed in an inner portion of the block main body, the main flow path being connected to a main pipe which is connected to an inner portion of the bladder, and the auxiliary flow paths being connected to a plurality of branch pipes; and

a plurality of panel valves each comprising a valve main body which includes an inflow path, an outflow path, a valve port and a valve body for opening and closing the valve port to

Art Unit: 1722

selectively communicate and shut off the inflow path and the outflow path, the valve main body having a valve side connection surface in one side of an outer surface thereof,

wherein the valve side connection surface of each panel valve includes a first inflow port communicating with the inflow path and a first outflow port communicating with the outflow path, and the block side connection surface of the block main body includes a plurality of second outflow ports and a plurality of second inflow ports each communicating with either the main flow path or a respective one of the auxiliary flow paths,

wherein the plurality of panel valves are each attached to the block main body side by side in a vertical direction by connecting the respective valve side connection surface and the block side connection surface in a face to face connection such that the respective first inflow port and one of the second outflow ports are matched, and the respective first outflow port and one of the second inflow ports are matched, and

wherein the plurality of panel valves include a steam supply valve, a gas supply valve, a shaving gas supply valve, a gas recovery valve and an exhaust valve, and the exhaust valve is arranged at a lowest position on the block main body of the panel block, as claimed in claim 1.

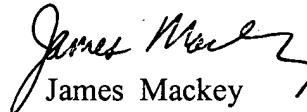
4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Mackey whose telephone number is 571-272-1135. The examiner can normally be reached on M-F, 8:30-5:00.

Art Unit: 1722

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
James Mackey  
Primary Examiner  
Art Unit 1722

3/18/06

jpm  
March 18, 2006